Application No. 10/760,118
In the Claims:

Please amend claim 1, 7, 10, 15 and 20 and cancel claims 4, 5, 6, 11, 18, 19 and 24-37. Please add new claims 38 and 39. All claims are shown below.

1. (Currently Amended) A condenser system for use with a camera to collect and image EUV radiation to a mask comprising: a source of radiation that generates EUV radiation; and at least one collector mirror facing the source of radiation wherein the at least one collector mirror comprises a substrate, an underlying reflective surface, and an upper sacrificial reflective surface wherein the underlying reflective surface has a normal incidence reflectivity of at least about 30% of the EUV radiation and wherein the underlying reflective surface comprises a first multilayer film that is deposited on a surface of the substrate and wherein the sacrificial reflective surface is a second multilayer film that is deposited on a surface of the underlying reflective surface and wherein the presence of the upper sacrificial reflective surface does not enhance the reflectance of the at least one collection mirror.

2. (Original) The condenser system of claim 1 wherein the at least one collector mirror does not include a passivating overcoat.

3. (Original) The condenser system of claim 1 wherein the source of radiation is a laser plasma source.

4. 5, and 6. (Canceled)

7. (Currently Amended) The condenser system of claim ~~6~~ 1 wherein (i) the first multilayer film comprises alternating layers of first material having a first refractive index and a second material having a second refractive index that is larger than that of the first material and (ii) the second multilayer film comprises alternating layers of third material having a third refractive index and a fourth material having a fourth refractive index that is larger than that of the third material.

8. (Previously Presented) The condenser system of claim 7 wherein the first multilayer film comprises about 20 to 80 layer pairs and the second multilayer film comprises about 100 to 400 layer pairs.

9. (Original) The condenser system of claim 8 wherein the first multilayer film has a periodicity of about 5 nm to 30 nm and the second multilayer film has a periodicity of about 5 nm to 30 nm.

10. (Currently Amended) The condenser system of claim ~~6~~ 1 wherein the first multilayer film comprises alternating layers of molybdenum and silicon and the second multilayer film comprises alternating layers of molybdenum and silicon.

11. (Canceled)

12. (Original) The condenser system of claim 1 wherein the system is for use with a ringfield camera and wherein the at least one collector mirror comprises at least two substantially equal radial segments of a parent aspheric mirror, each having one focus

at the radiation source and a curved line focus filling the object field of the camera at the radius of the ringfield and each producing a beam of radiation.

13. (Original) The condenser system of claim 12 further comprising: a corresponding number of sets of correcting mirror means which are capable of translation or rotation, or both, such that all of the beams of radiation pass through the entrance pupil of the camera and form a coincident arc image at the ringfield radius, wherein at least one of the correcting mirrors of each set, or a mirror that is common to said sets of mirrors, from which the radiation emanates, is a concave relay mirror that is positioned to shape a beam segment having a chord angle of about 25 to 85 degrees into a second beam segment having a chord angle of about 0 to 60 degrees, wherein the distance from the collector mirrors to the concave relay mirror is equal to 3 to 10 times the distance from the concave relay mirror to the mask.

14. (Original) The condenser system of claim 13 wherein the at least one collector mirror comprises six substantially equal radial segments of a parent aspheric mirror.

15. (Currently Amended) A condenser system having a set of mirrors for collecting extreme ultra-violet (EUV) radiation from a radiation source that forms a source image and having correcting mirrors which are capable of translating or rotating, or both, one or more beams from said set of mirrors and are capable of modifying the convergence of the one or more beams or the size of the source image, or both, and wherein the system includes at least one collector mirror facing a source of EUV radiation wherein the at least one collector mirror comprises a substrate, an underlying reflective surface, and an upper sacrificial reflective surface wherein the

underlying reflective surface has a normal incidence reflectivity of at least about 30% of the EUV radiation and wherein the underlying reflective surface comprises a first multilayer film that is deposited on a surface of the substrate and wherein the sacrificial reflective surface is a second multilayer film that is deposited on a surface of the underlying reflective surface and wherein the presence of the upper sacrificial reflective surface does not enhance the reflectance of the at least one collection mirror.

16. (Original) The condenser system of claim 15 wherein the at least one collector mirror does not include a passivating overcoat.

17. (Original) The condenser system of claim 15 wherein the radiation source is a laser plasma source.

18. and 19. (Canceled)

20. (Currently Amended) The condenser system of claim ~~19~~ 15 wherein (i) the first multilayer film comprises alternating layers of first material having a first refractive index and a second material having a second refractive index that is larger than that of the first material and (ii) the second multilayer film comprises alternating layers of third material having a third refractive index and a fourth material having a fourth refractive index that is larger than that of the third material.

21. (Original) The condenser system of claim 20 wherein the first multilayer film comprises about 20 to 80 layer pairs and the second multilayer film comprises about 100 to 400 layer pairs.

22. (Original) The condenser system of claim 21 wherein the first multilayer film has a periodicity of about 5 nm to 30 nm and the second multilayer film has a periodicity of about 5 nm to 30 nm.

23. (Original) The condenser system of claim 19 wherein the first multilayer film comprises alternating layers of molybdenum and silicon and the second multilayer film comprises alternating layers of molybdenum and silicon.

24-37 (Canceled)

38. (New) The condenser system of claim 1 wherein the second multilayer film has a thickness that is at least two times that of the first multilayer film.

39. (New) The condenser system of claim 15 wherein the second multilayer film has a thickness that is at least two times that of the first multilayer film.